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BUTTERFLIES OF ST. CROIX

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St. Croix is the largest of the U.S. Virgin Islands and represents the eastern extremity of the Greater Antilles, 70 miles S.E. of Puerto Rico. The average annual rainfall ranges from 20″ in the arid east end to 60″ in the high N.W. corner of the island. Vegetation of the dryer areas is predominately cacti-*Croton-Acacia* shrub, while the wetter areas support *Ficus-Cecropia* and other second growth trees. There has been little study of the island's butterflies since Comstock's original *Insects of Porto Rico and the Virgin Islands* (Vol. XII, pt. 4) published by the New York Academy of Science in 1944. This short article will review observations on the status, habitats, and seasonality of the species noted in recent periods of fieldwork (summers 1970-73 and winters 1972-73).

STATUS

Comstock recorded eighteen species, all of which can be found today except for a small Lycaenid (*Leptotes*). I added one species, *Dryas julia*, apparently a wandering accidental. (Specimens are in the author's collection and/or on deposit with the West Indies Laboratory, St. Croix). A species list is presented below with notations of status (for the appropriate season). The limited fauna is typical of small oceanic islands.

DANAIDAE
- *Danaus plexippus* — common.

NYMPHALIDAE
- *Heliconius charithonius* — common.
- *Dryas julia* — accidental.
- *Agraulis vanillae* — common.
- *Precis lavinia* — abundant.
- *Anartia jatrophae* — uncommon.
- *Metamorpha stelenes* — common.
- *Biblis hyperia* — common.
- *Eunica tatila* — uncommon.
- *Anaea troglodyta* — uncommon.

LYCAENIDAE
- *Strymon simaethis* — uncommon.
- *Strymon bubastus* — common.
- *Leptotes cassius* — extinct?
- *Hemiargus ceraunus* — common.

PIERIDAE
- *Phoebis sennae* — common.
- *Eurema daira* — uncommon.
- *Eurema lisa* — abundant.
- *Ascia monuste* — abundant.

PAPILIONIDAE
- *Papilio polydamas* — common.

HABITATS AND SEASONALITY

I maintained qualitative descriptions of habitat preferences (open, mixed, or woods) and seasonality. The dry summers provided a direct comparison with the wet winters for the most important seasonal parameter, rainfall. (The significance of wet-and-dry seasonality has been well documented in a variety

of tropical insect groups). Interestingly, there is an apparent interaction between habitat preference and seasonal preference, as shown in Figure 1. Species which are more abundant in the wet season are clearly associated with wooded habitats, while "mixed-open" species are more abundant in the dry season, or show no marked seasonal differences. The biological significance of the habitat-seasonality interaction is probably related to larval food availabilities which could be studied with brief plant surveys. In any case, we note that seasonal patterns of species abundances will vary considerably *between* tropical habitats in a given area.

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HABITAT PREFERENCE

SEASONALITY	OPEN	MIXED	WOODS
DRY TOLERANT	D.plexippus A.jatrophe A.troglodyta	D.julia	S.simaethis
BOTH WET AND DRY	P.lavinia S.bubastus H.ceraunus E.lisa A.monuste	A.vanillae P.sennae P.polydamas	
WET PREFERENCE		E.daira	H.charitonius M.stelenes B.hyperia E.tatila

Fig. 1.—The seasonality and habitat preference interactions of the eighteen species of butterflies on St. Croix.